

Amendment  
U.S. Patent Application No. 09/833,202

REMARKS

Reconsideration and continued examination of the above-identified application are respectfully requested.

The amendment to the claims further defines what the applicant regards as the invention. Full support for the amendment can be found in the claims as originally filed, for instance, at pages 7-9 of the present application. Accordingly, no questions of new matter should arise and entry of the amendment is respectfully requested.

At page 4 of the Office Action, the Examiner provisionally rejects claims 1, 3-8, 10, and 14 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-8, 10, and 14 of the co-pending U.S. Patent Application No. 10/112,689 (U.S. Patent Application Publication No. 2003/0017379) by Cabot Corporation. For the following reasons, this provisional rejection should be withdrawn.

Since this rejection is a provisional rejection and neither application has been allowed, the applicant would prefer to address this point once the second application is in condition for allowance. It is believed that the M.P.E.P. supports this point of view where there are two pending applications. Accordingly, this provisional rejection should be withdrawn.

At page 6 of the Office Action, the Examiner rejects claims 1, 3-8, 10, and 14 under 35 U.S.C. §102(e) as being anticipated by Yu et al. (U.S. Patent No. 6,399,202). The Examiner asserts that the abstract of Yu et al. shows gas diffusion electrodes containing a modified carbon product, wherein the modified carbon product is a carbon product having attached at least one organic group. Furthermore, the Examiner asserts that the gas diffusion electrodes of Yu et al. are used in fuel cells. The Examiner then concludes that it would be inherent that a fuel cell should at least include

## Amendment

U.S. Patent Application No. 09/833,202

two electrodes and an electrolyte to satisfy mechanical, chemical, and kinetic requirements so as to obtain a fully functional or working fuel cell that converts electrochemical energy into electrical energy. Finally, the Examiner asserts that Yu et al. incorporates in its entirety, by reference, the teachings of Dirven et al. (U.S. Patent No. 5,561,000). Dirven et al. shows that a fuel cell is mainly composed of the assembly of a cathode, an anode, and a solid electrolyte membrane between the cathode and the anode. For the following reasons, this rejection is respectfully traversed.

Claim 1 and the claims dependent thereon relate to a fuel cell having at least one modified carbon product present in one of the electrodes of the fuel cell. Claim 1 further recites that the active layer, also considered the catalyst layer, which forms part of the electrode has a film thickness of about 5 microns or less.

Yu et al., which relates to gas diffusion electrodes, does not teach such a film thickness or the advantages of being able to reduce the film thickness. Accordingly, this rejection should be withdrawn.

With respect to the new claims, Yu et al. does not teach or suggest an active layer or catalyst layer wherein at least one modified carbon product forms the active layer, in part, as a carbon support, and wherein the catalyst particles are directly on the carbon support. As acknowledged by the Examiner, at page 8 of the Office Action, Yu et al. does show mixing catalyst particles such as platinum with the modified carbon product, but it is believed that Yu et al. does not show the formation of a carbon support using modified carbon product(s) and then having catalyst particles directly on the carbon support. In addition, Yu et al. does not teach or suggest catalyst particles that are attached or adsorbed onto the modified carbon products and the other details set forth in the dependent claims. Accordingly, these claims are also not taught or suggested by Yu et al.

Amendment  
U.S. Patent Application No. 09/833,202

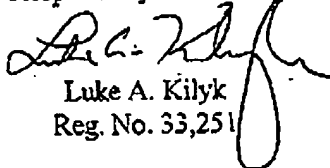
If there are any questions or concerns, the Examiner is encouraged to contact the undersigned by telephone.

**CONCLUSION**

In view of the foregoing remarks, the applicant respectfully requests the reconsideration of this application and the timely allowance of the pending claims.

If there are any other fees due in connection with the filing of this response, please charge the fees to Deposit Account No. 03-0060. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,

  
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Atty. Docket No. 01023  
Application No. 09/833,202

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Application No. 09/833,202

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